

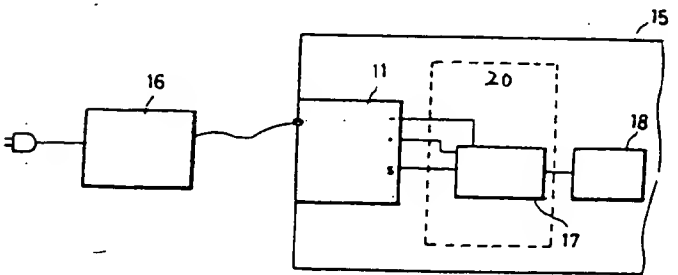
407M 1V/28

(54) SECONDARY BATTERY PACK AND CHARGED STATE REPORTING
DEVICE THEREOF

- (11) 3-149767 (A) (43) 26.6.1991 (19) JP
- (21) Appl. No. 64-288430 (22) 6.11.1989
- (71) CASIO COMPUTER CO LTD (72) SHUICHI OKAMOTO
- (51) Int. Cl⁵. H01M10/48, G01R31/36

PURPOSE: To detect the connection of a charger to a secondary battery pack by providing a detecting section detecting that the charger is connected and an external guide terminal guiding the detected signal from the detecting section to the outside.

CONSTITUTION: A detector 17 detecting that a charger 16 is connected has a moving contact made of a plate spring and operated when the plug of the charger 16 is inserted into a jack in a secondary battery pack 11 and a fixed contact faced to the moving contact. For example, the moving contact and the fixed contact are separated from each other when the plug of the charger 16 is inserted, and both contacts are electrically connected when the plug is removed. An external guide terminal guiding the detected signal from the detecting section 17 to the outside is provided at a connection section where the secondary battery pack 11 and a terminal main body are connected, for example, and the detected signal from the external guide terminal is fed to the terminal main body. It can be detected with a simple structure that the charger 16 is connected to the secondary battery pack 11.



11: nickel-cadmium battery pack, 13: handy terminal, 18: liquid crystal display device, 20: circuit

(54) TEMPERATURE DETECTING DEVICE FOR LEAD-ACID BATTERY

- (11) 3-149768 (A) (43) 26.6.1991 (19) JP
- (21) Appl. No. 64-289732 (22) 6.11.1989
- (71) YUASA BATTERY CO LTD (72) YUKIO UEMICHI
- (51) Int. Cl⁵. H01M10/48, G01K1/14

PURPOSE: To invariably detect the internal temperature of a storage battery by inserting a cylinder through a liquid port plug in the vertical direction, fixing the upper section to a ceiling wall, and extending the lower section downward from the lower end of the liquid port plug.

